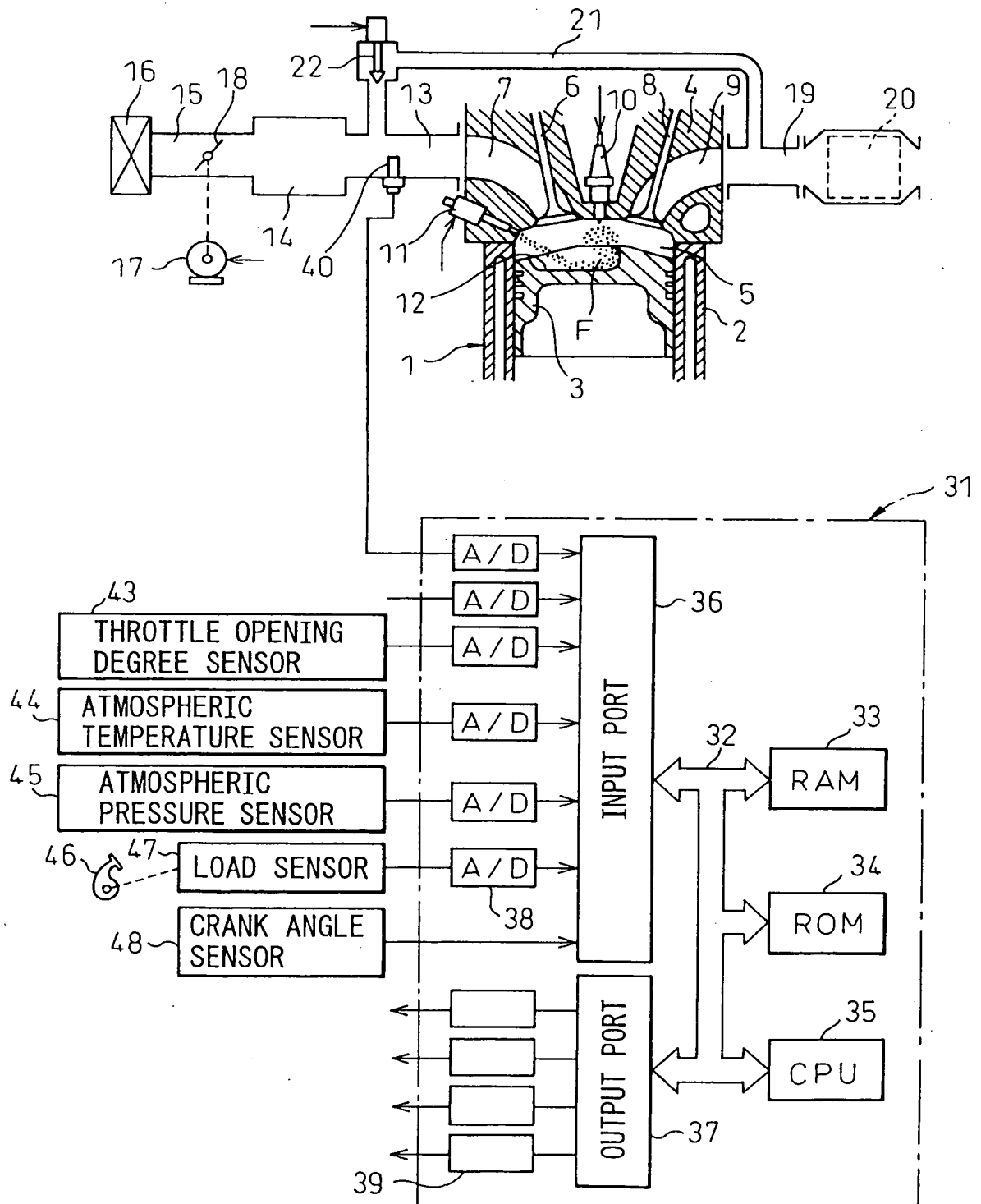


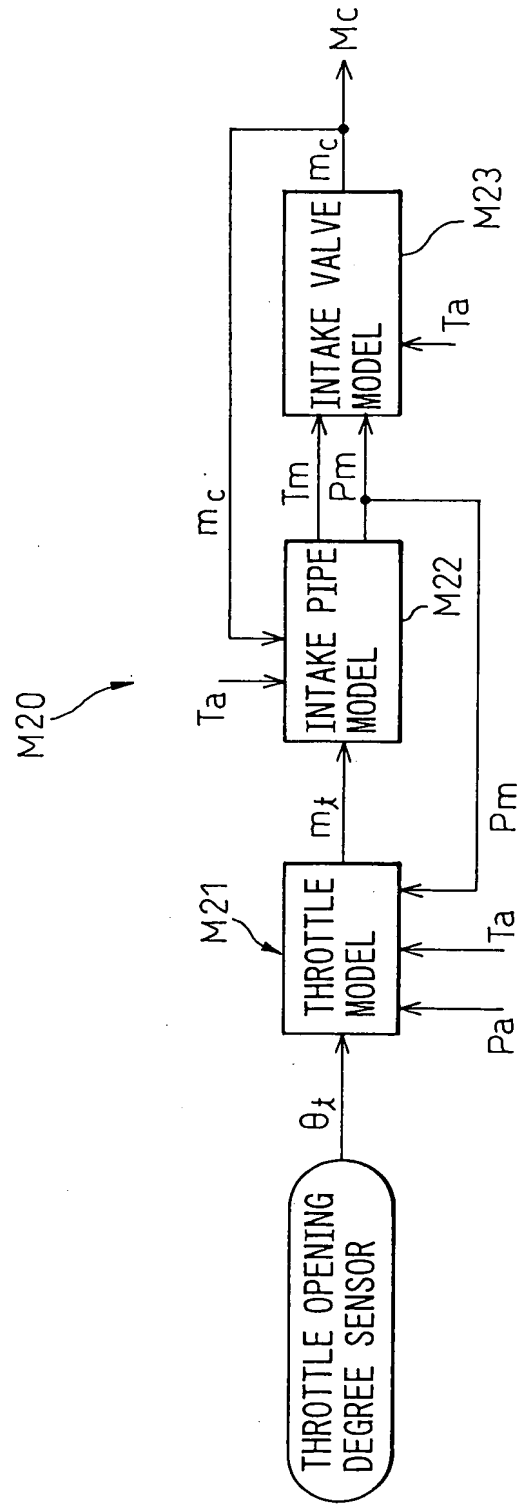
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Fig. 1



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Fig. 2



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Fig.3

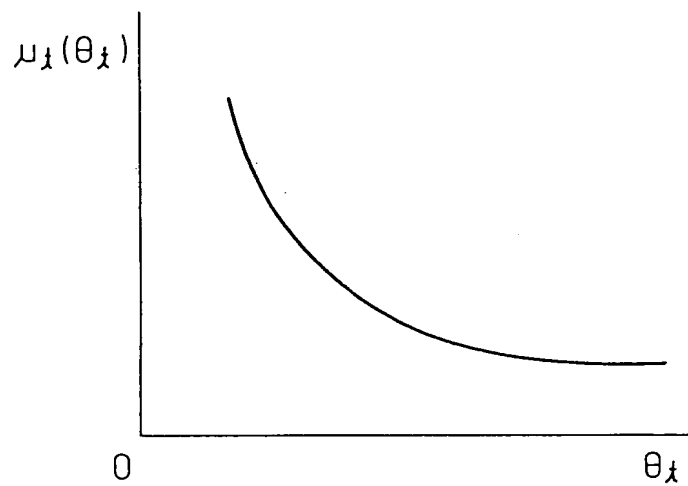
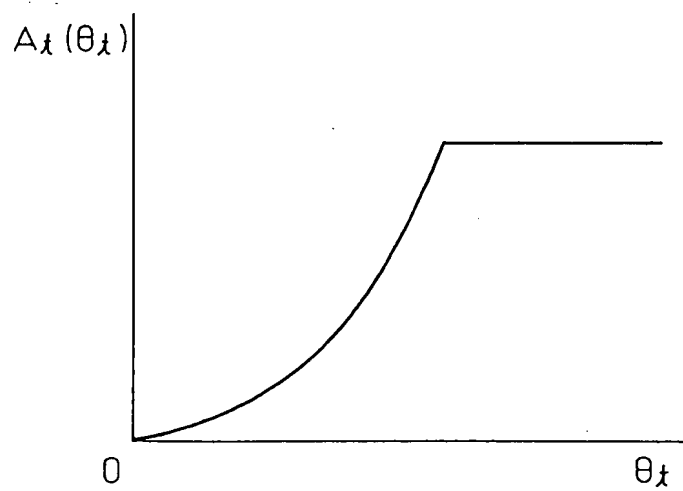


Fig.4



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Fig.5

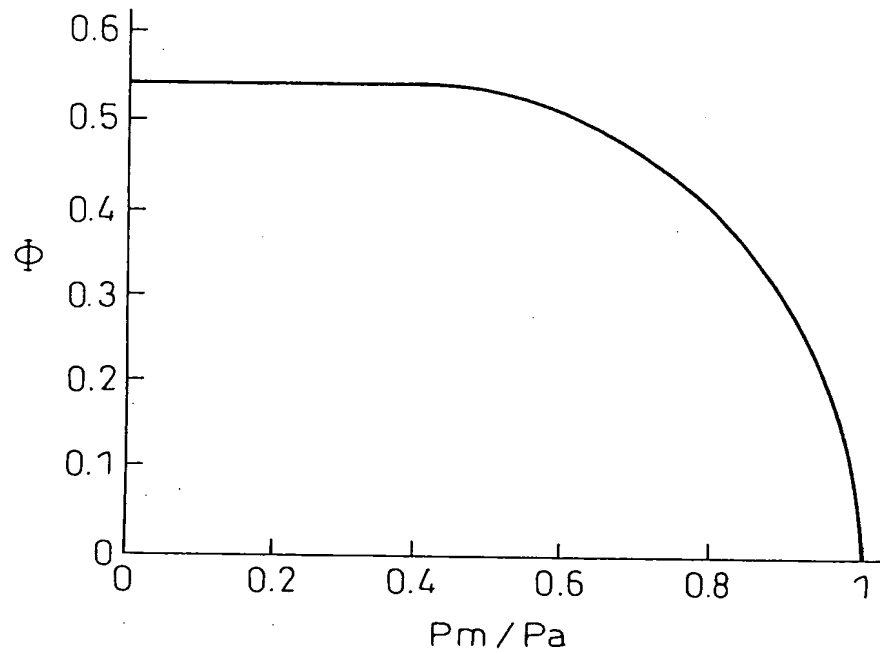
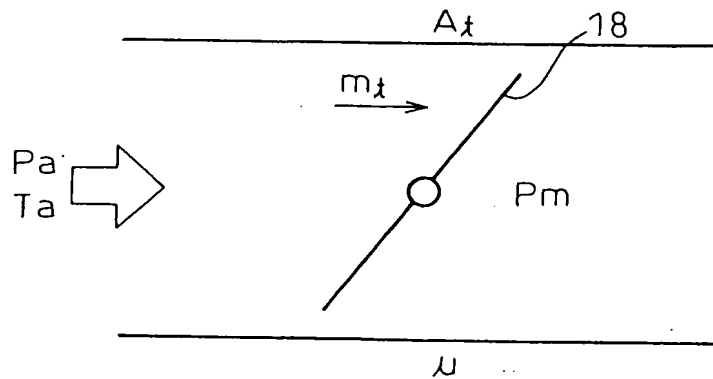


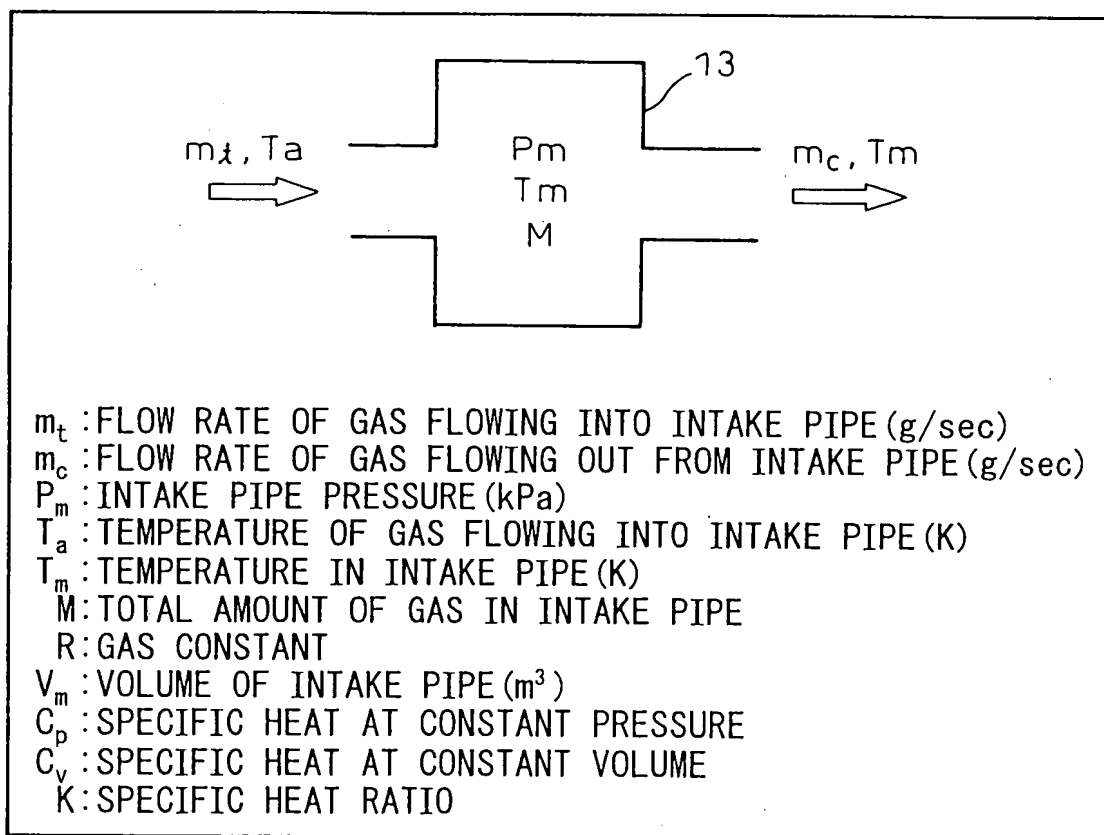
Fig.6



$P_m$  : INTAKE PIPE PRESSURE (kPa)  
 $P_a$  : ATMOSPHERIC PRESSURE (kPa)  
 $T_a$  : ATMOSPHERIC TEMPERATURE (K)  
 $A_t$  : CROSS SECTIONAL AREA OF OPENING OF THROTTLE VALVE ( $m^2$ )  
 $m_t$  : FLOW RATE OF AIR PASSING THROUGH THROTTLE VALVE (g/sec)  
 $\mu$  : FLOW RATE COEFFICIENT

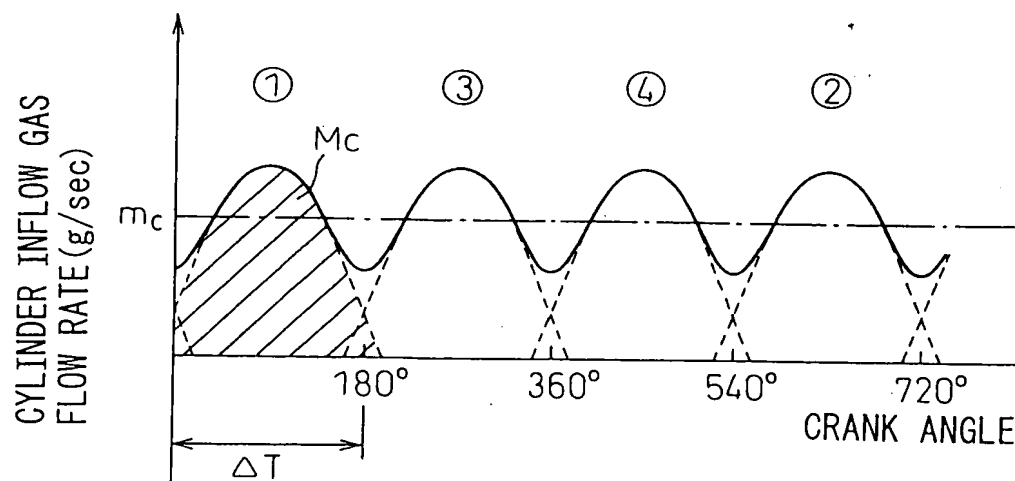
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Fig.7



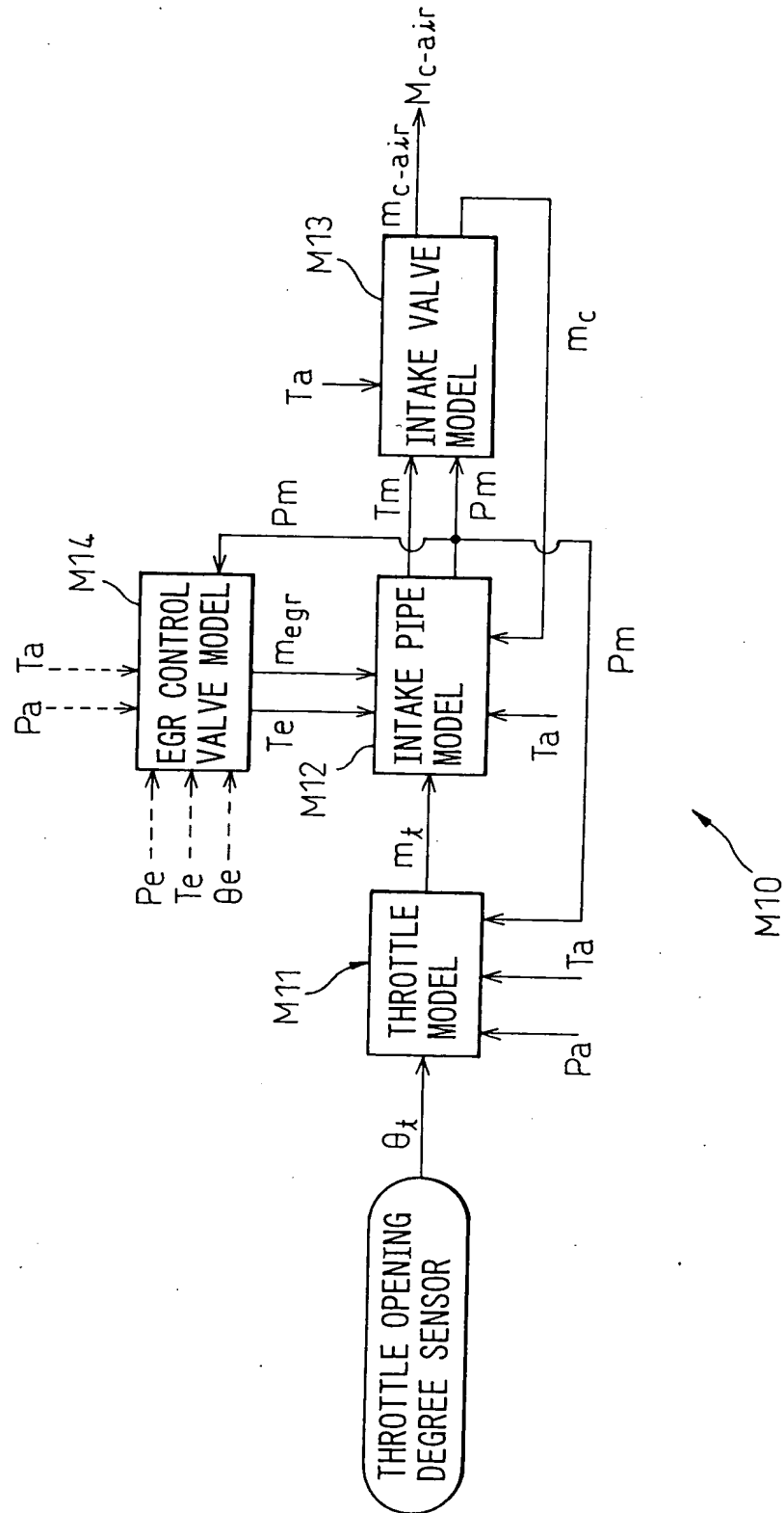
$P_m$  : PRESSURE UPSTREAM OF INTAKE VALVE (kPa)  
 $T_m$  : TEMPERATURE UPSTREAM OF INTAKE VALVE (K)  
 $T_a$  : ATMOSPHERIC TEMPERATURE (K)  
 $m_c$  : FLOW RATE OF GAS SUCKED INTO CYLINDER (g/sec)  
 a, b : ADAPTATION PARAMETERS

Fig.9



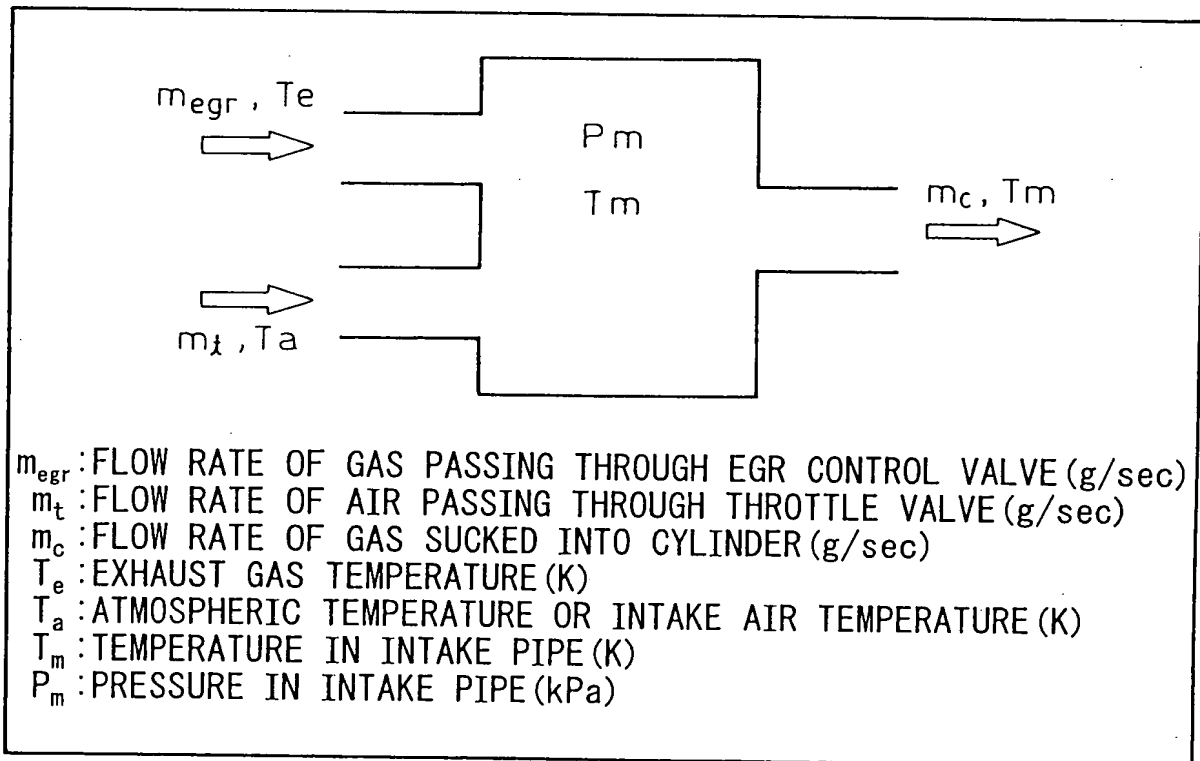
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Fig.10



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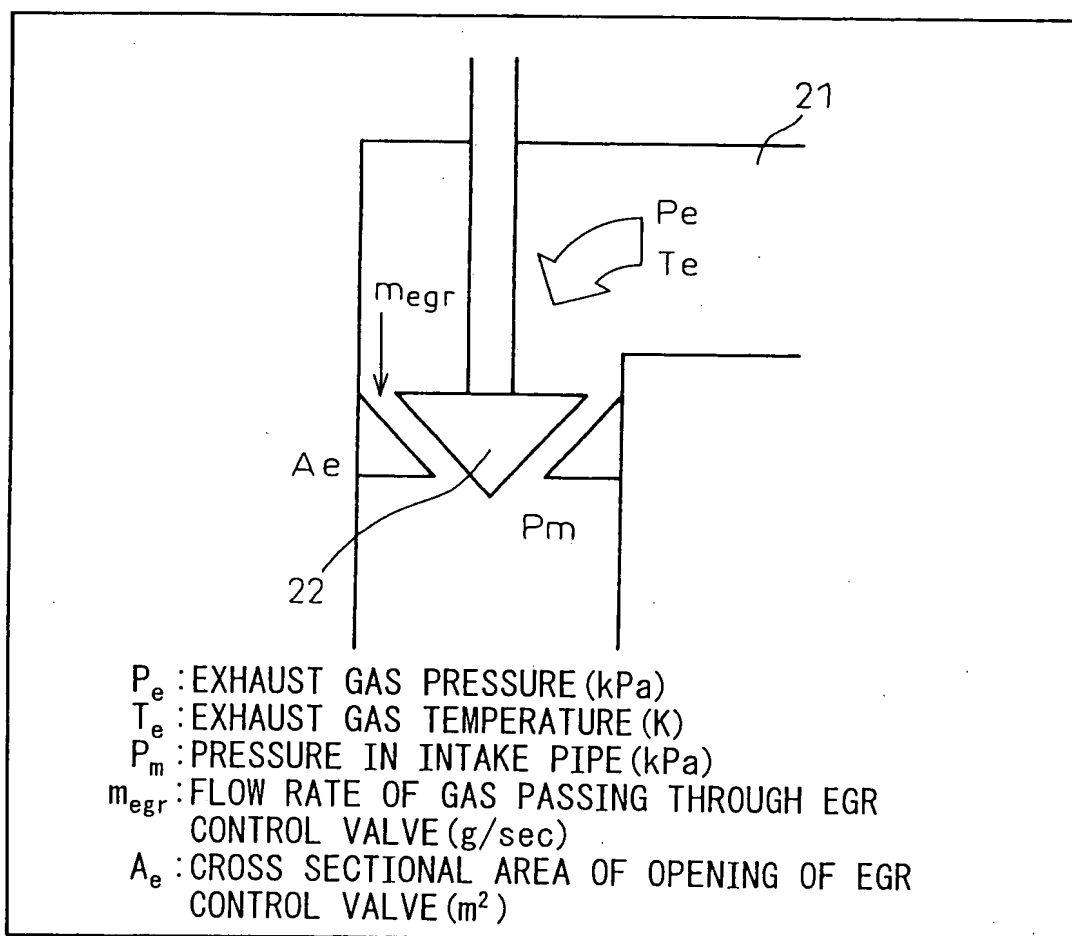
Fig.11





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Fig.12



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Fig.13

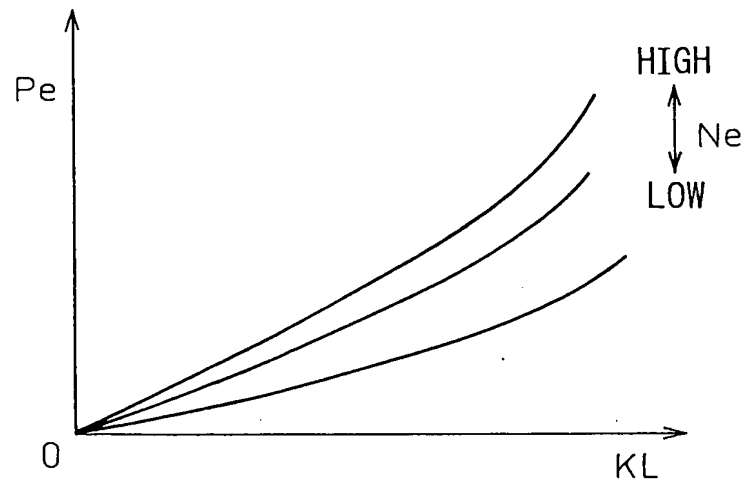
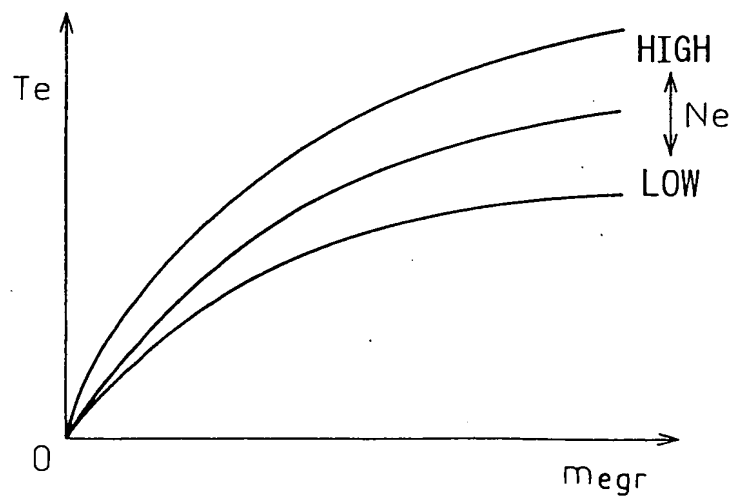


Fig.14



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Fig.15

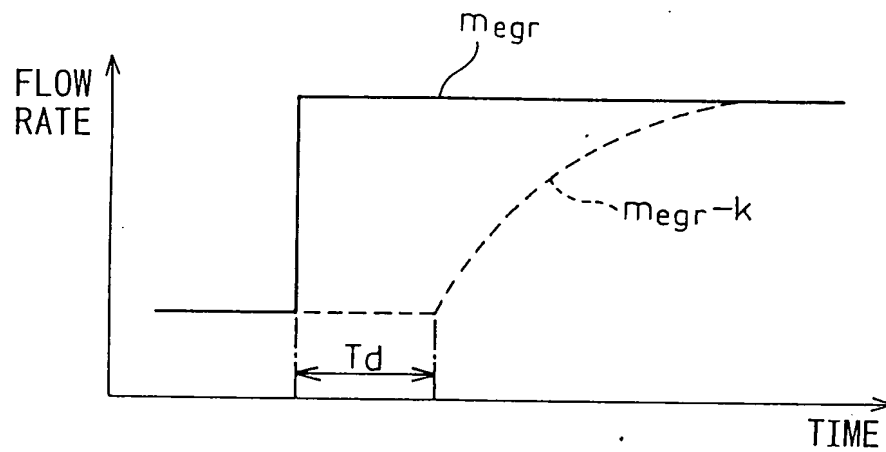


Fig.16A

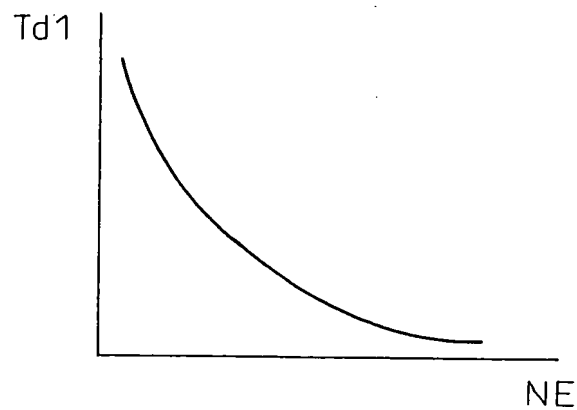
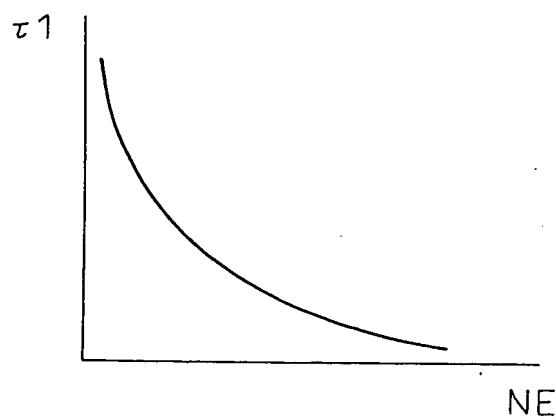


Fig.16B



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Fig.17A

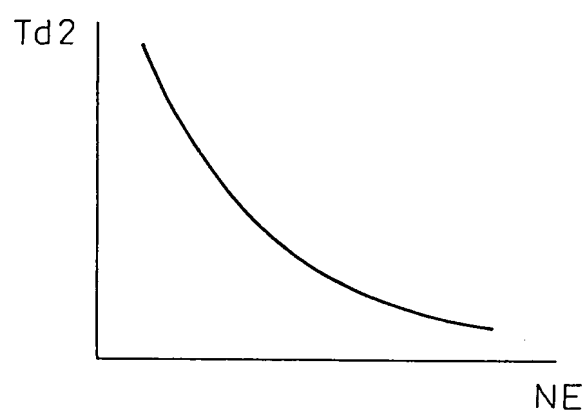
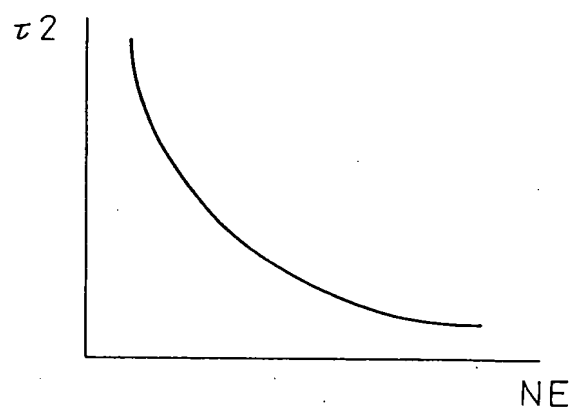
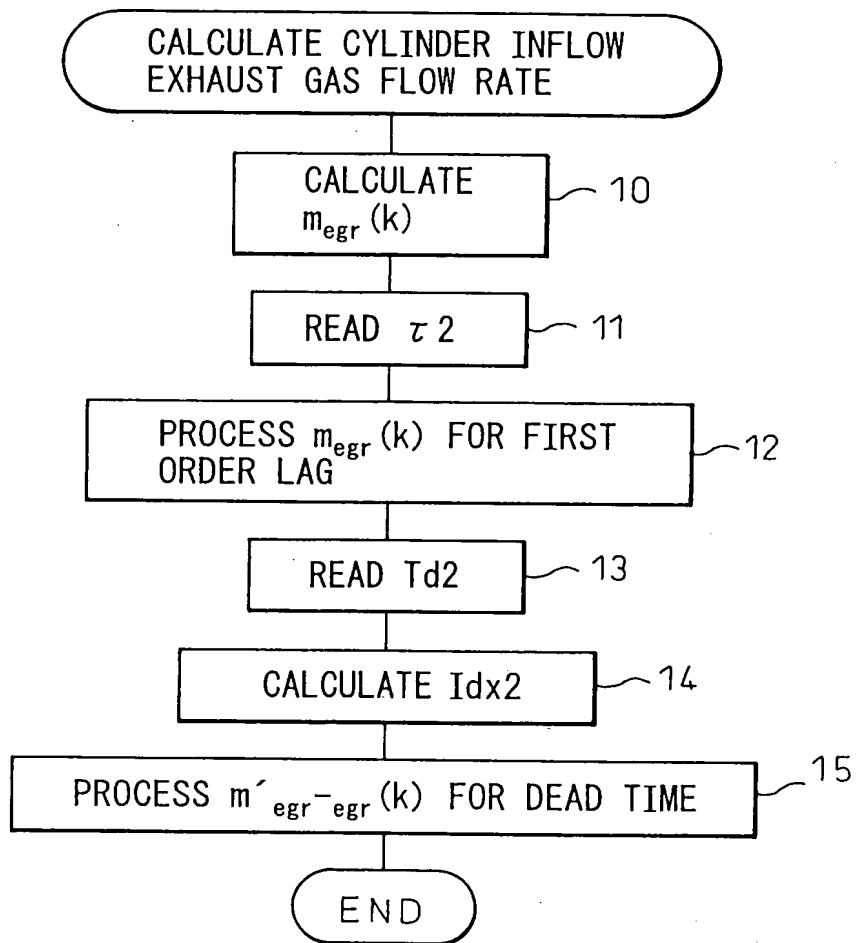


Fig.17B



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Fig.18



$\frac{14}{42}$ 

Fig.19A

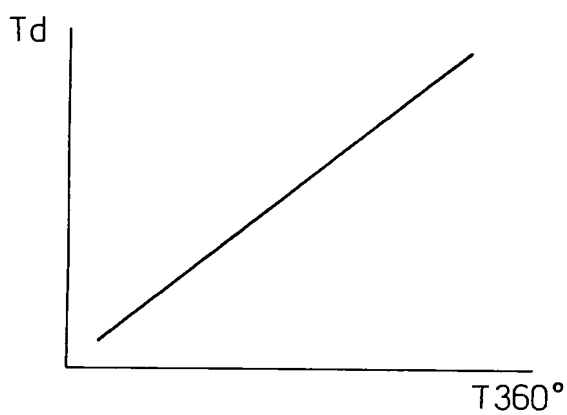
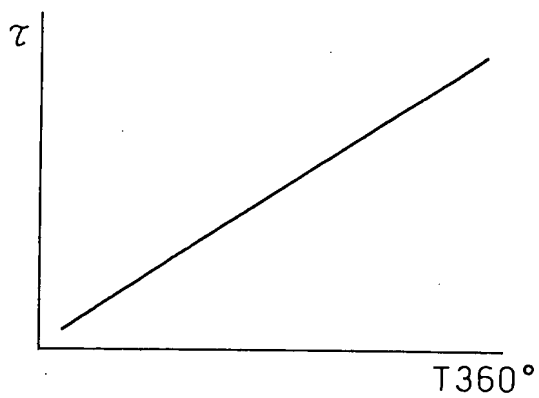


Fig.19B



$\frac{15}{42}$ 

Fig. 20A

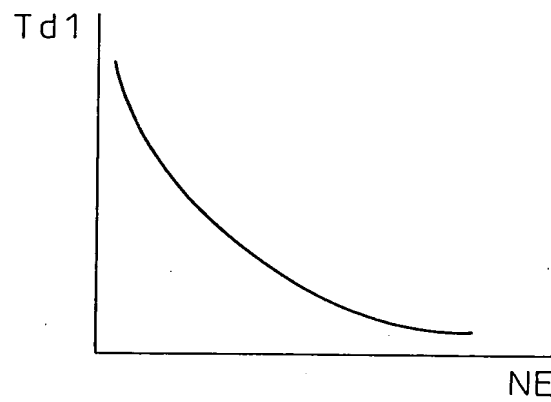
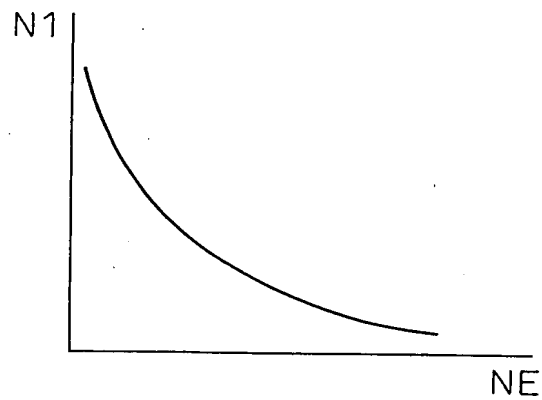


Fig. 20B



$\frac{16}{42}$ 

Fig. 21A

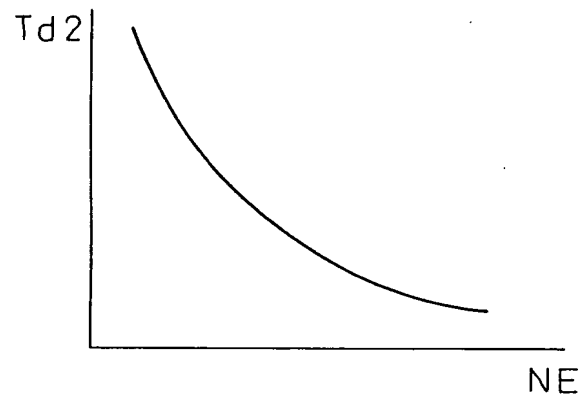
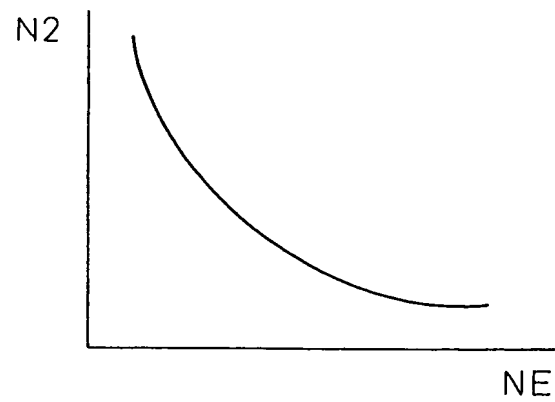


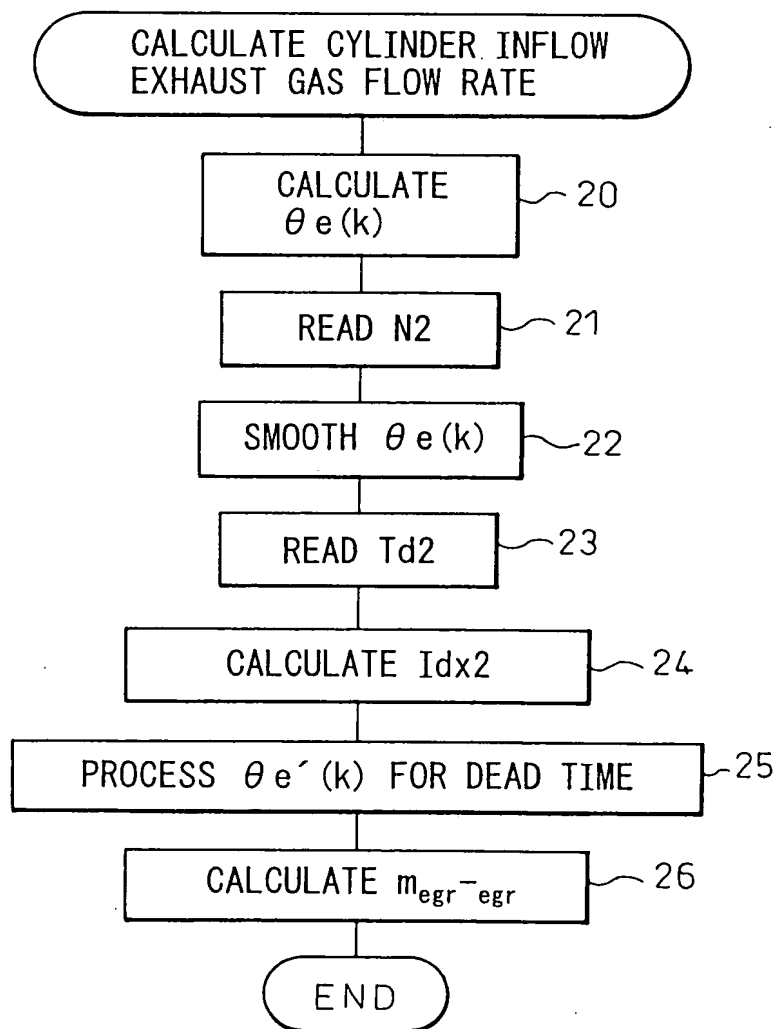
Fig. 21B





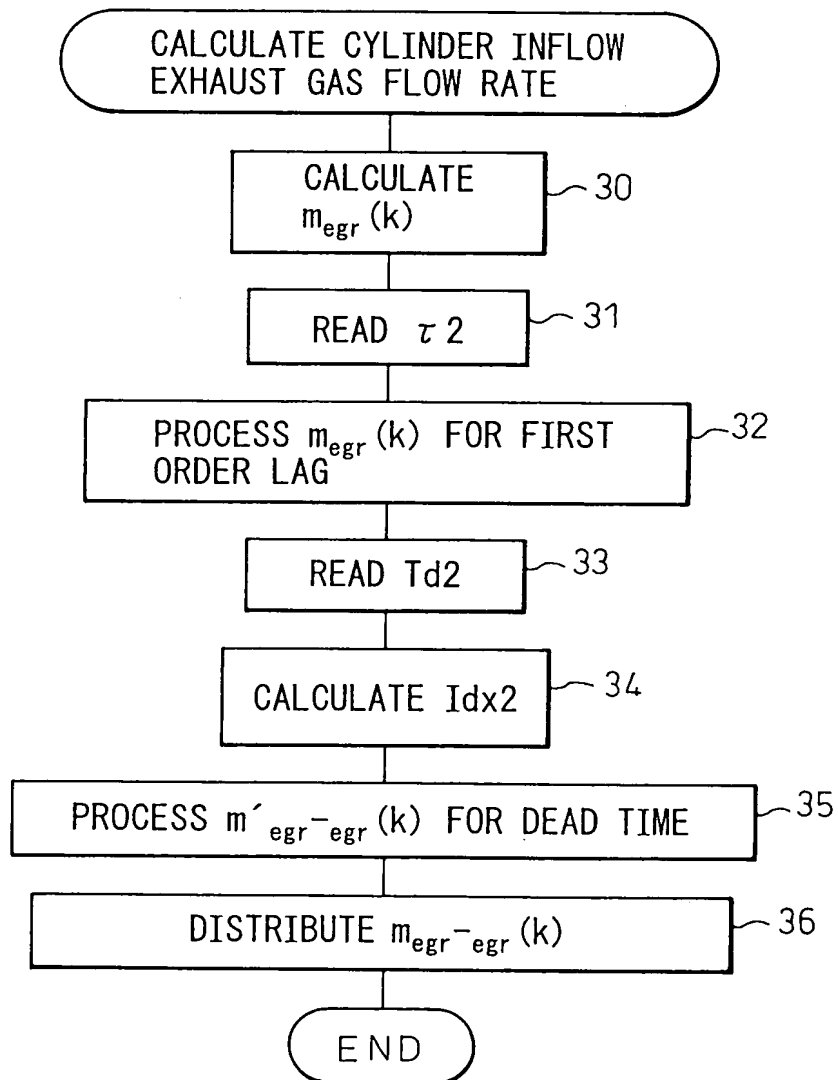
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Fig. 22



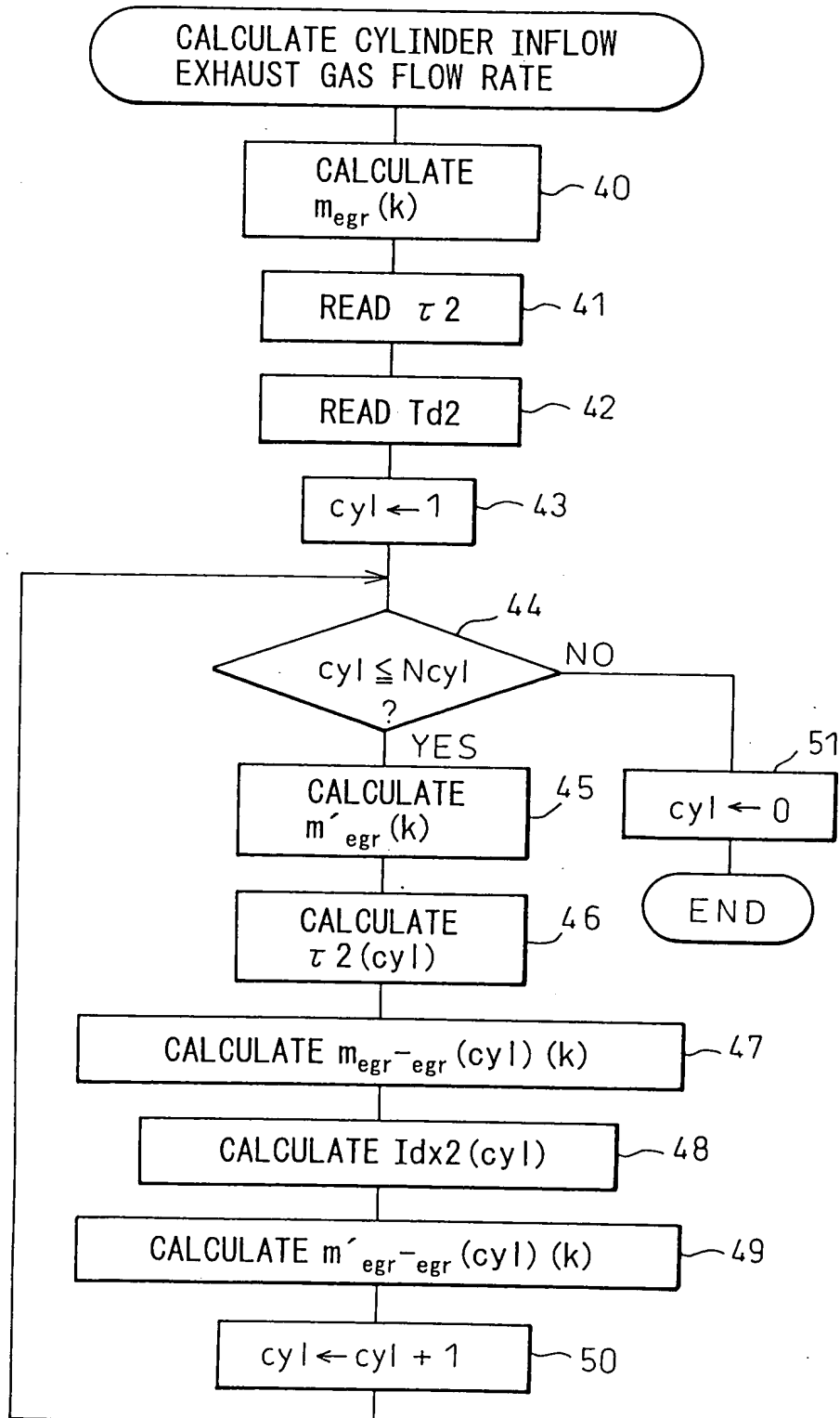
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Fig. 23



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Fig. 24



$\frac{20}{42}$ 

Fig.25A

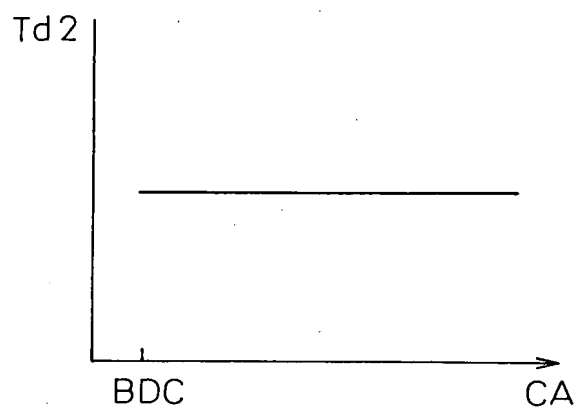
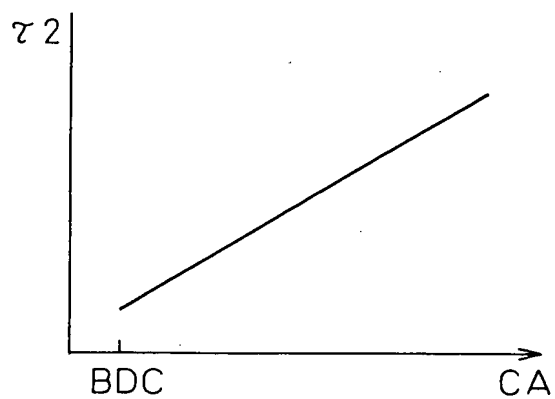


Fig.25B



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Fig. 26A

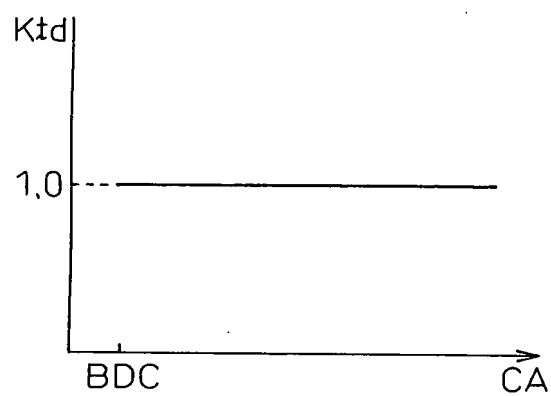
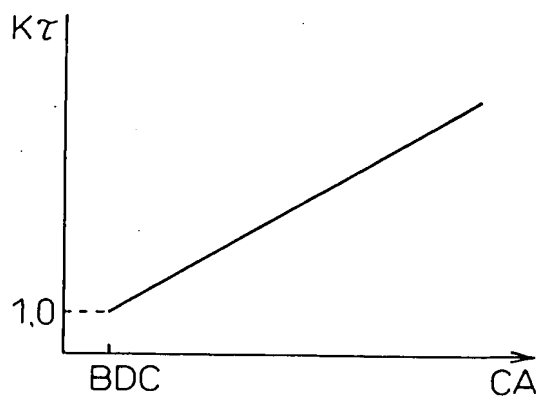


Fig. 26B



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Fig.27A

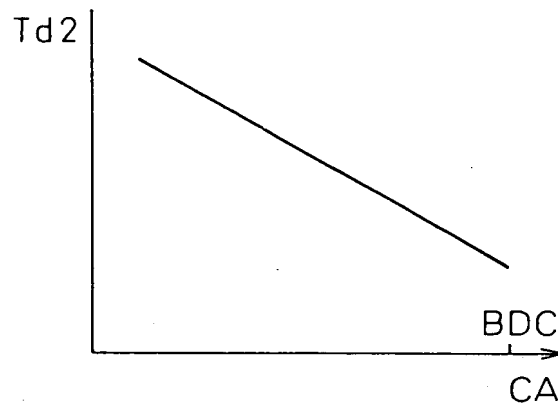
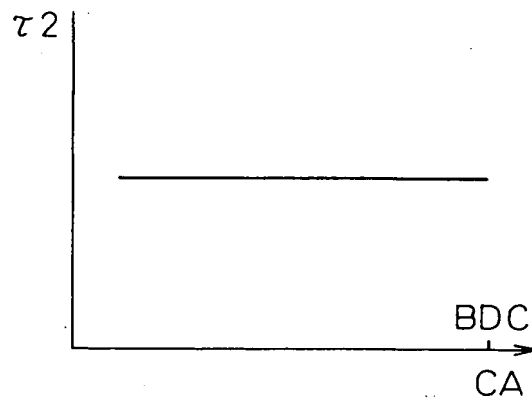


Fig.27B



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Fig.28A

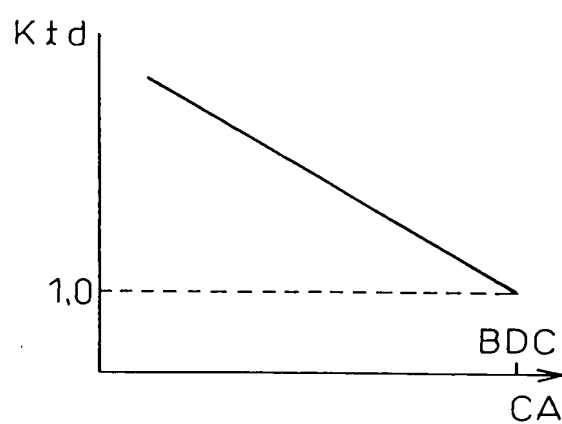
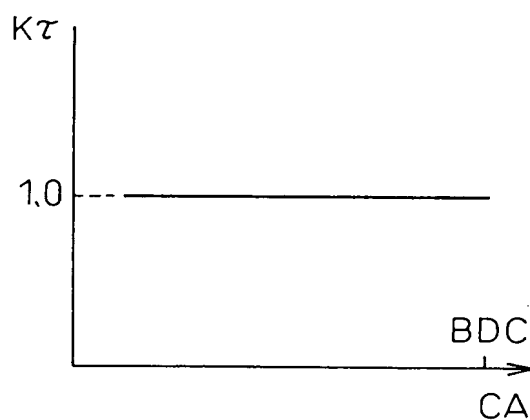


Fig.28B



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Fig.29A

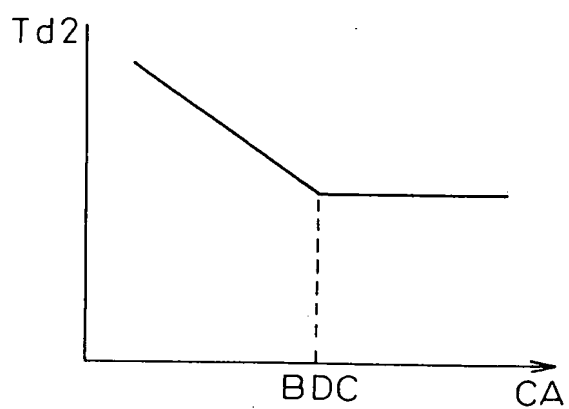
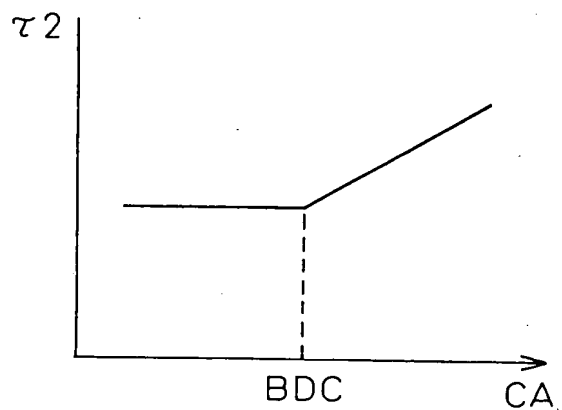


Fig.29B





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Fig.30A

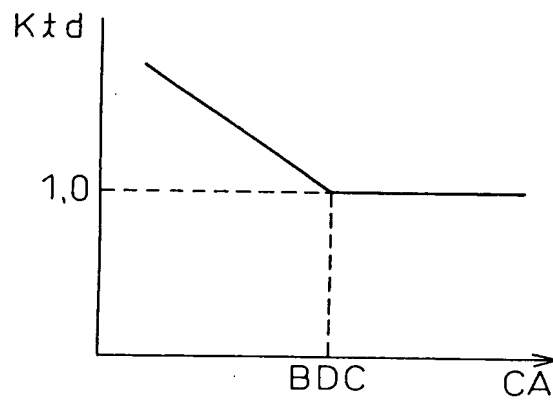
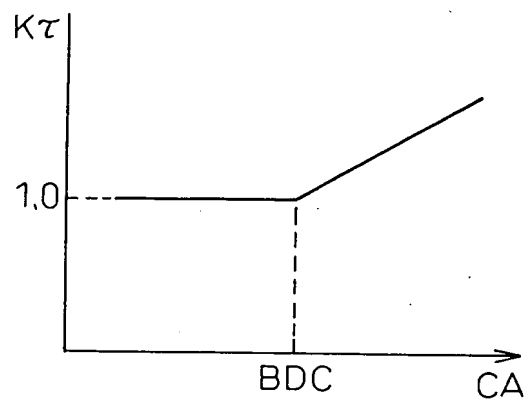


Fig.30B



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Fig.31

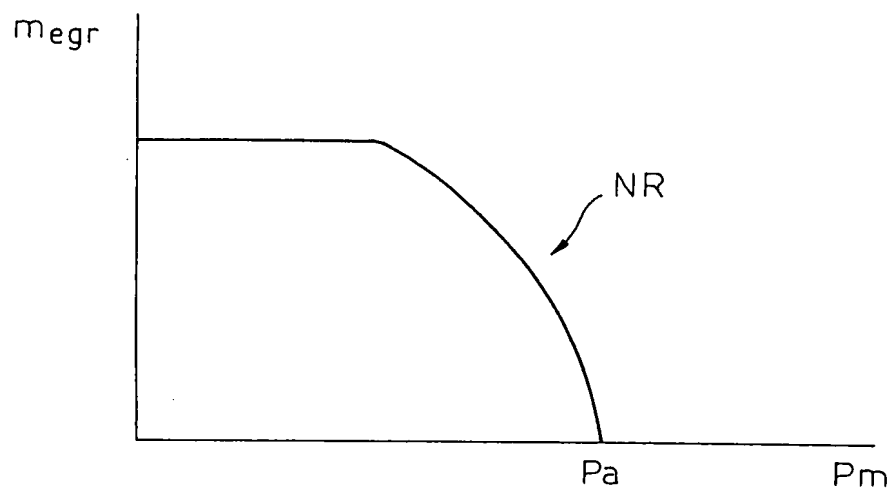
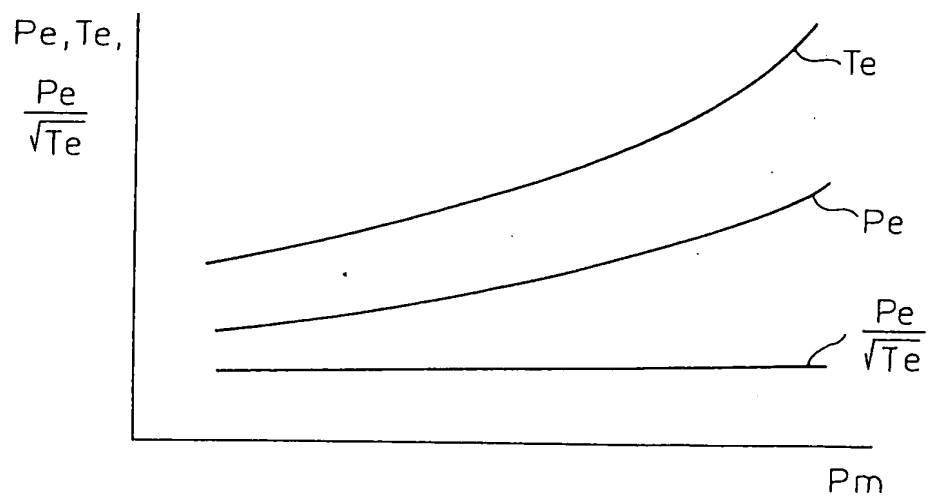


Fig.32



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Fig.33A

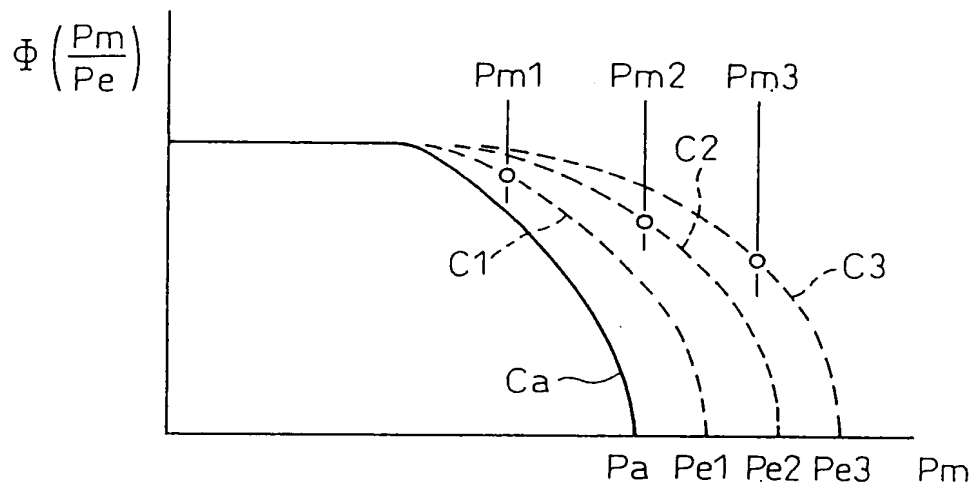
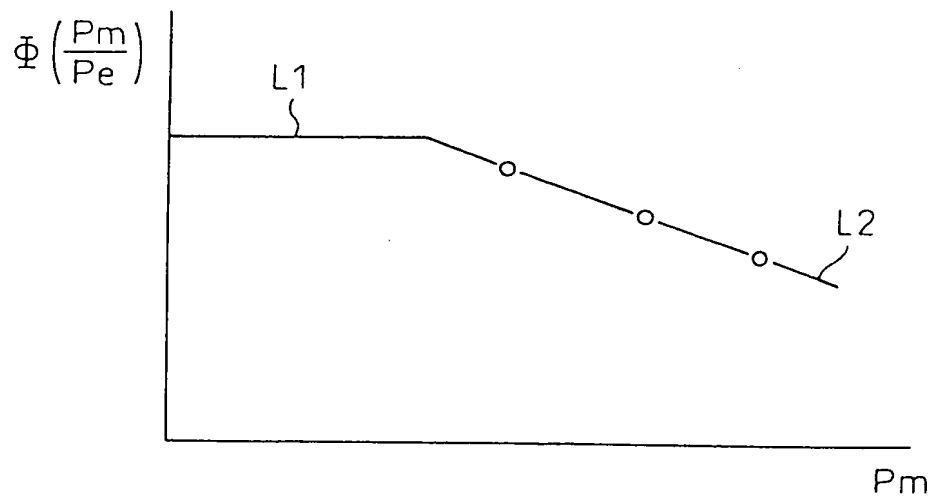
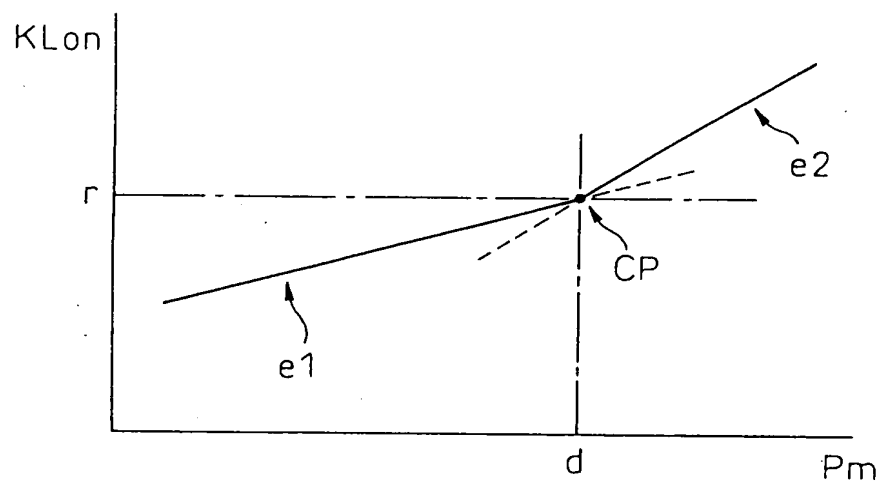


Fig.33B



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Fig.34



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Fig. 35 A

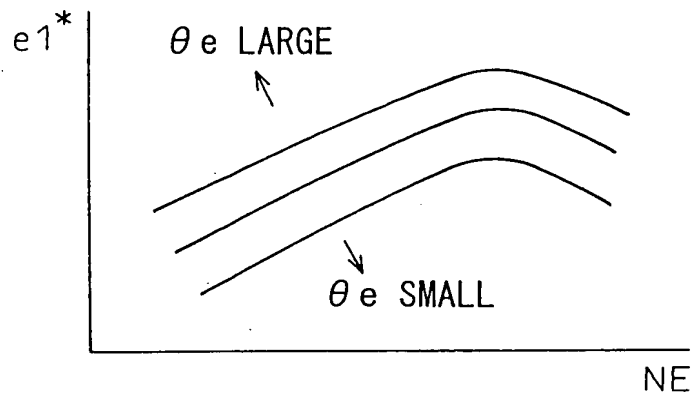


Fig. 35 B

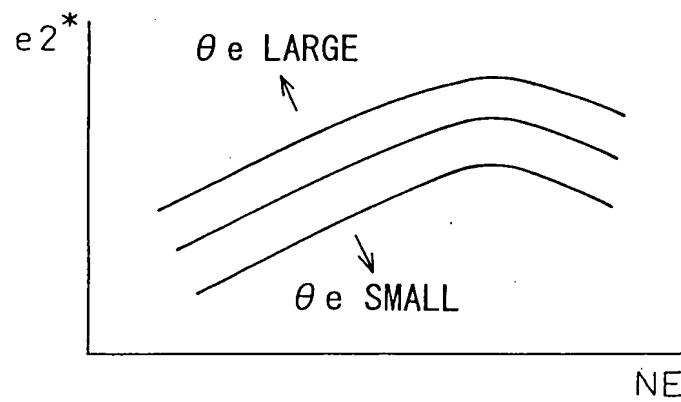


Fig. 35 C

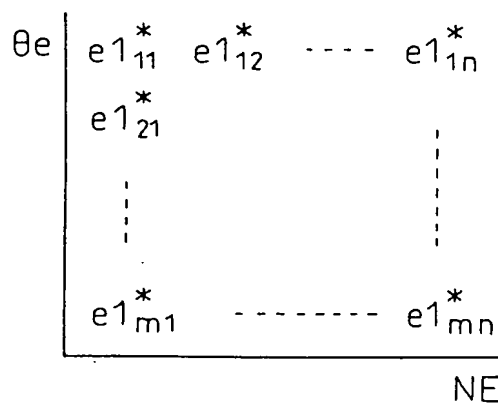
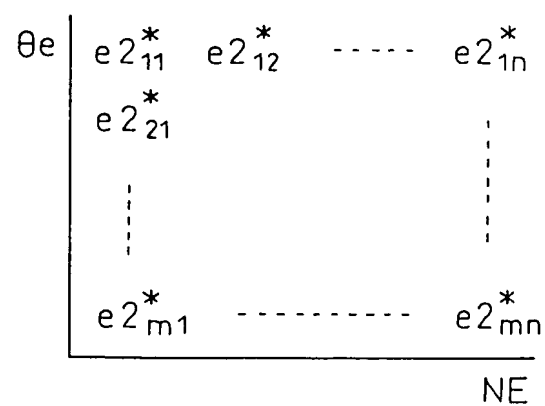


Fig. 35 D



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Fig.36

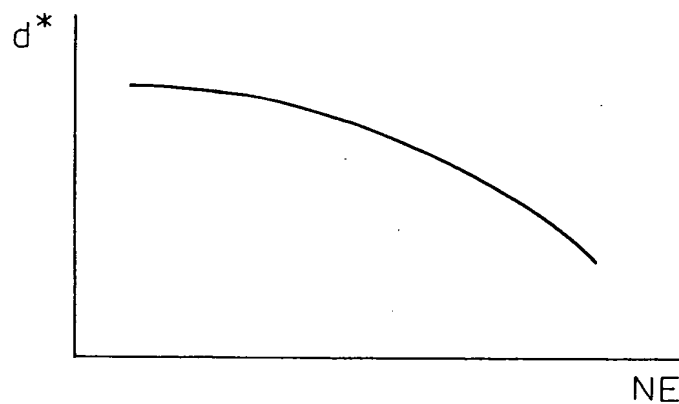


Fig.37A

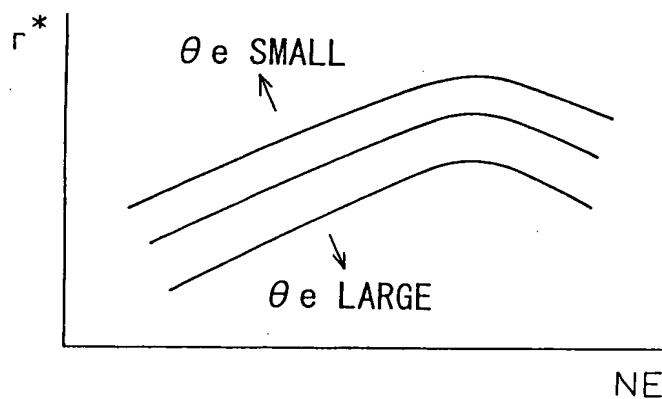
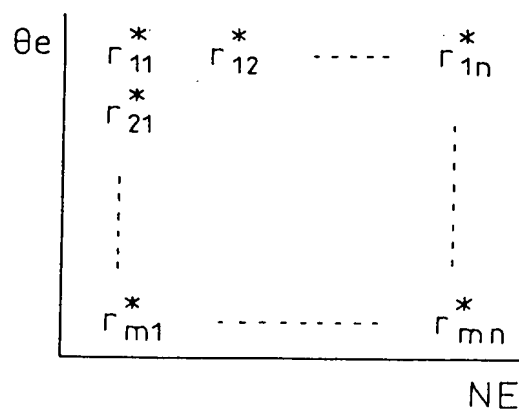


Fig.37B



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Fig.38

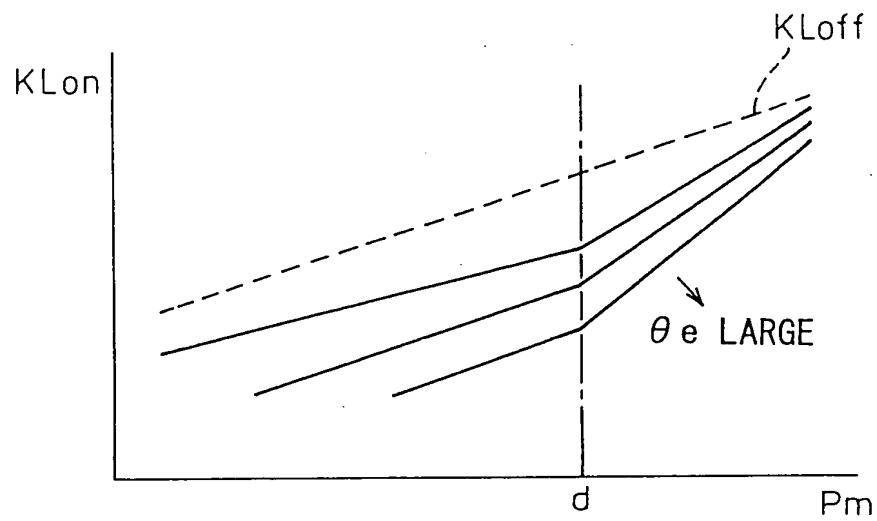
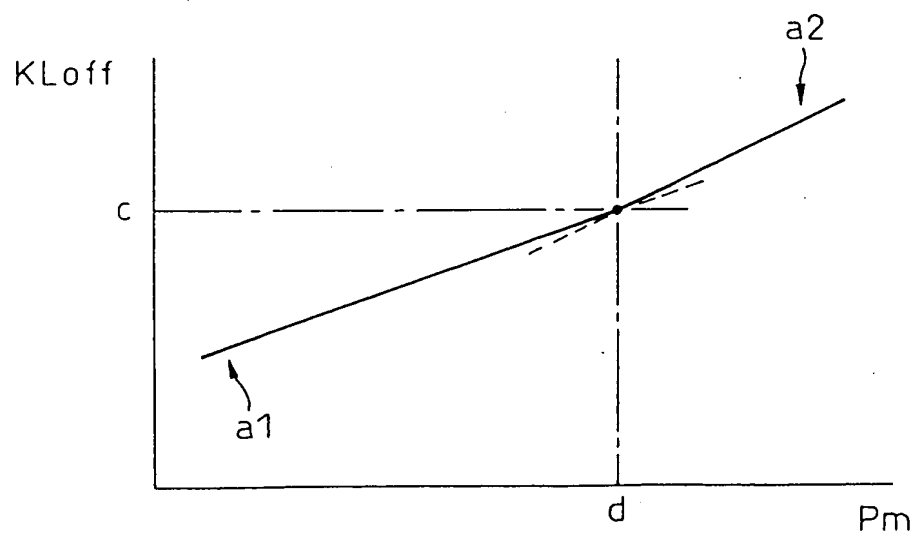


Fig.39



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Fig. 40A

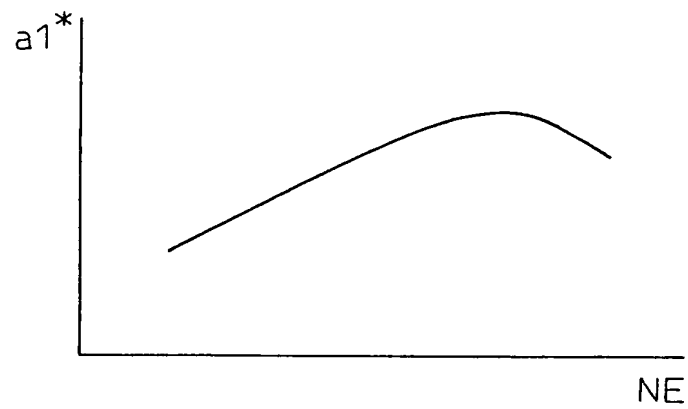


Fig. 40B

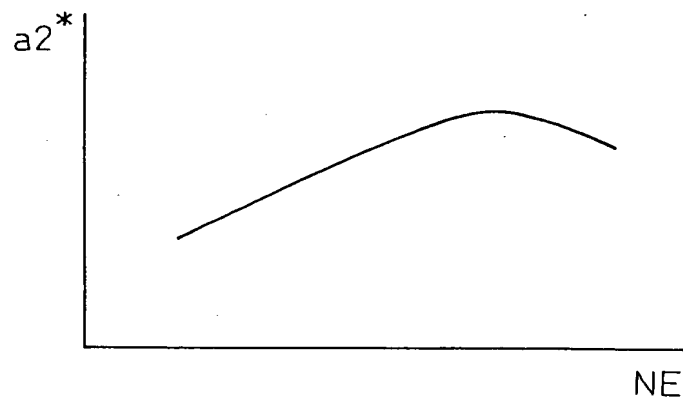
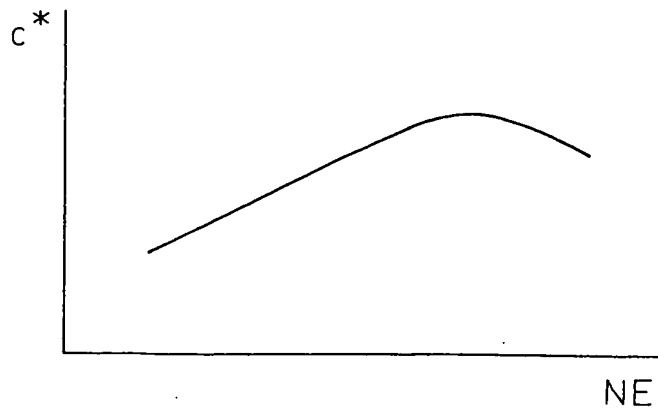


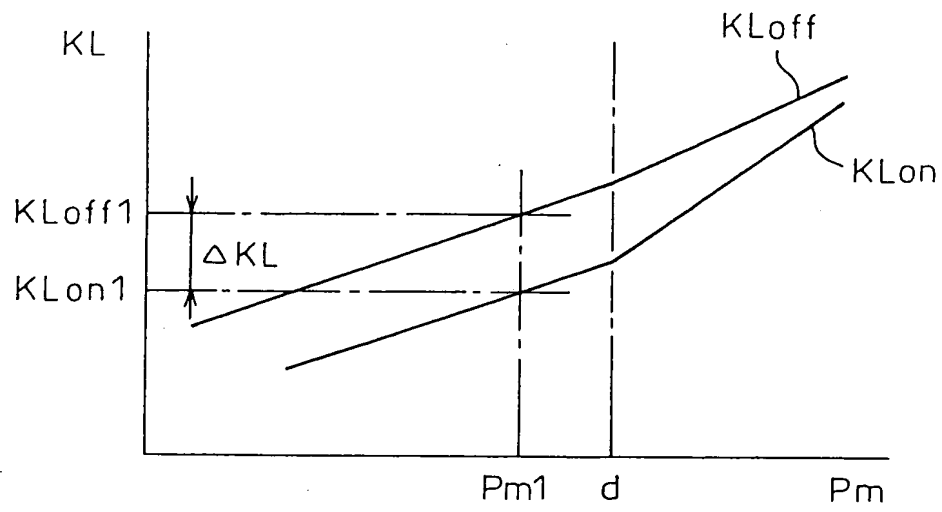
Fig. 41





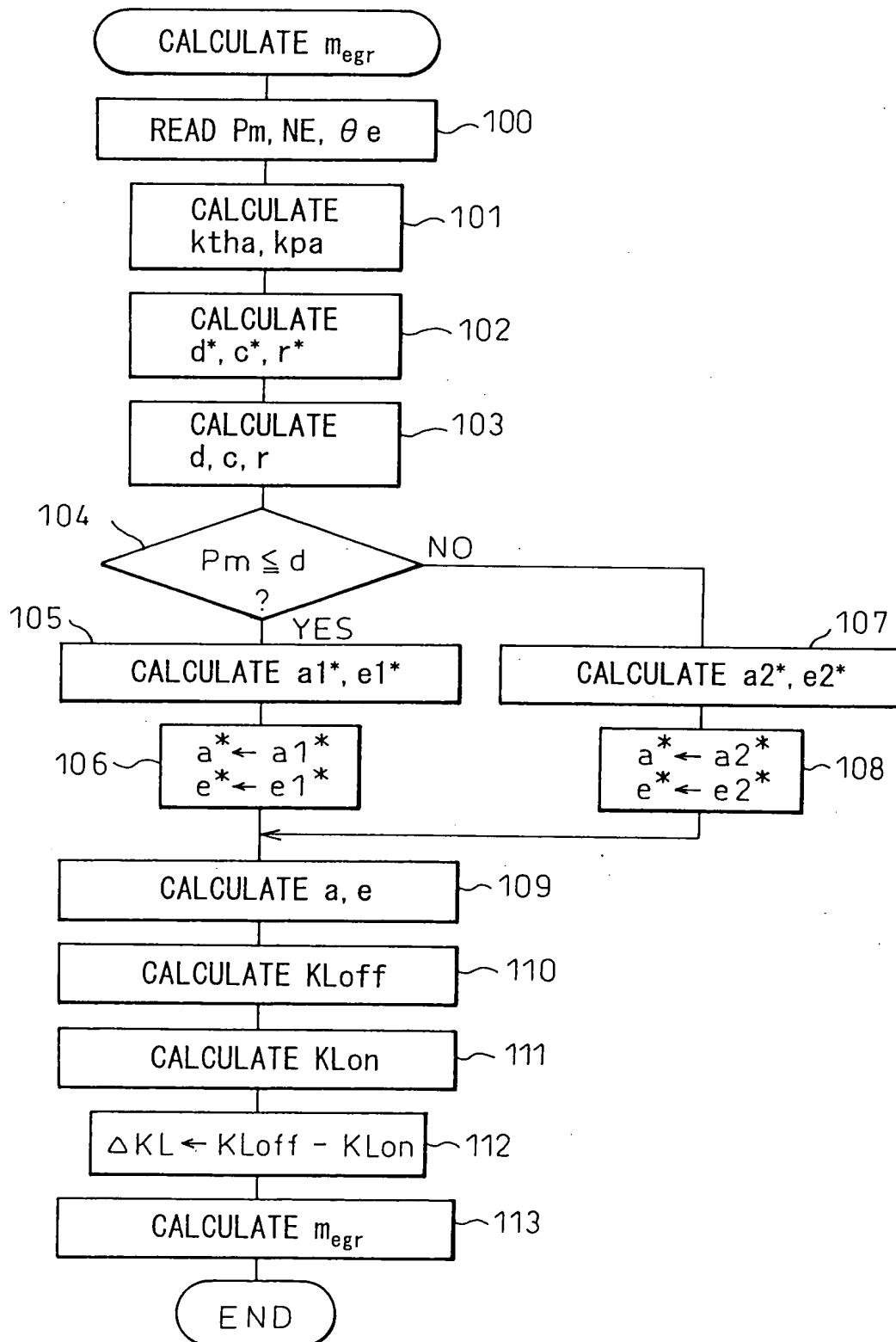
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Fig. 42



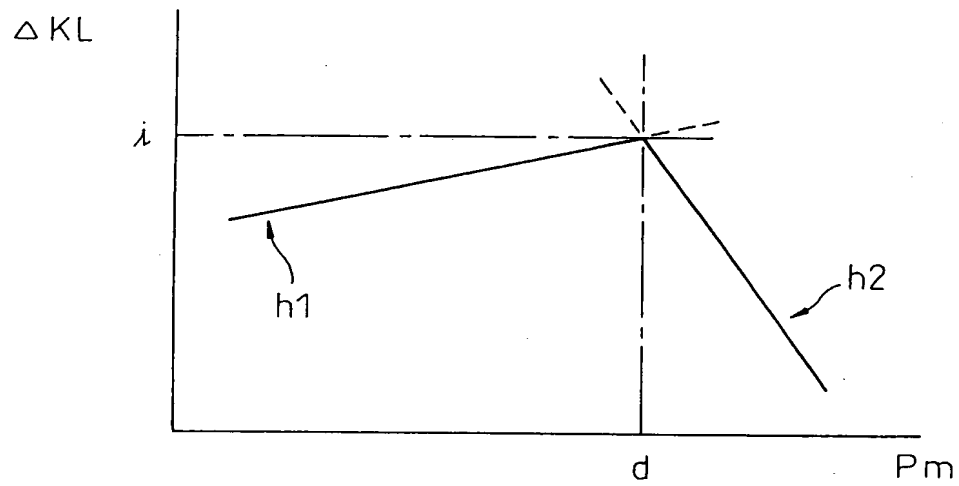
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Fig. 43



$\frac{35}{42}$ 

Fig.44



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Fig. 45A

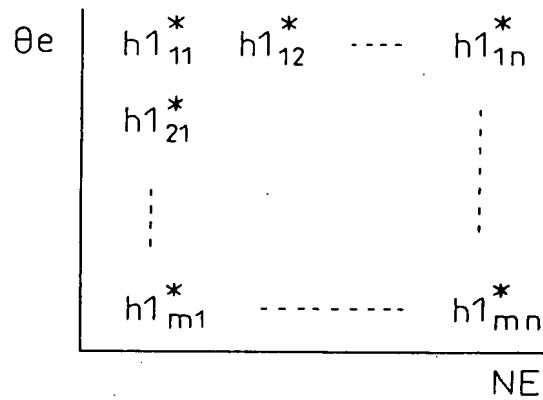


Fig. 45B

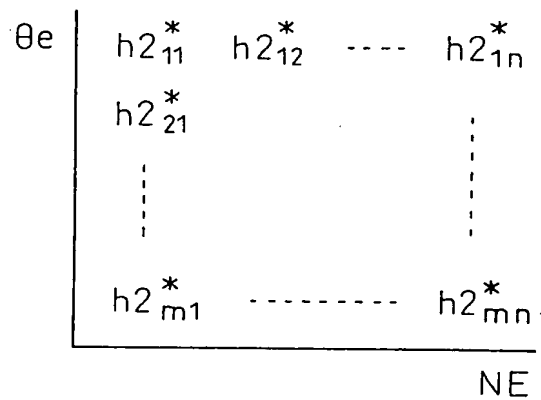
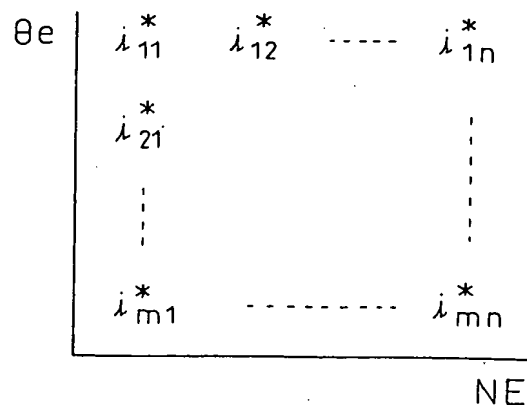
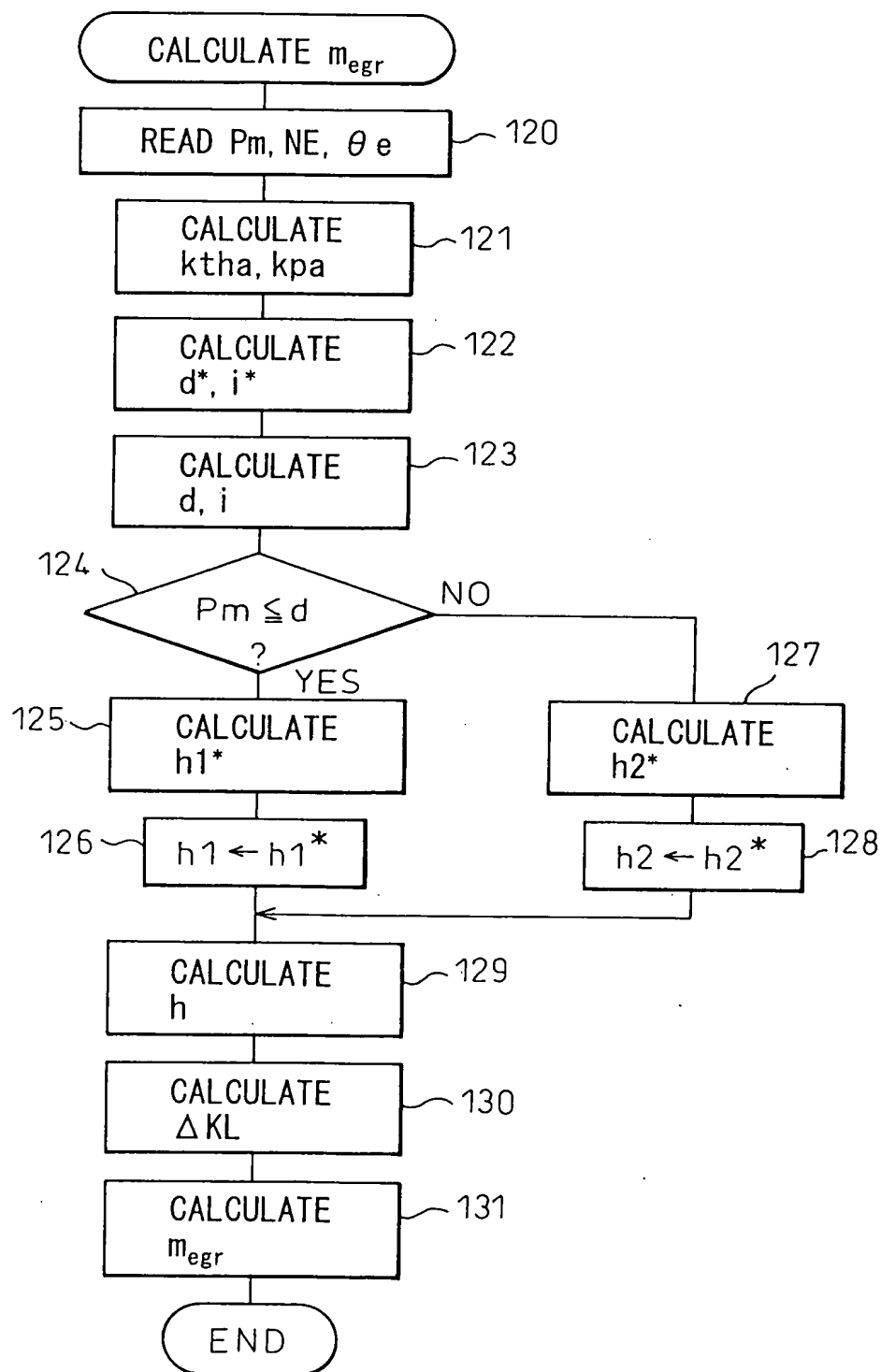


Fig. 45C



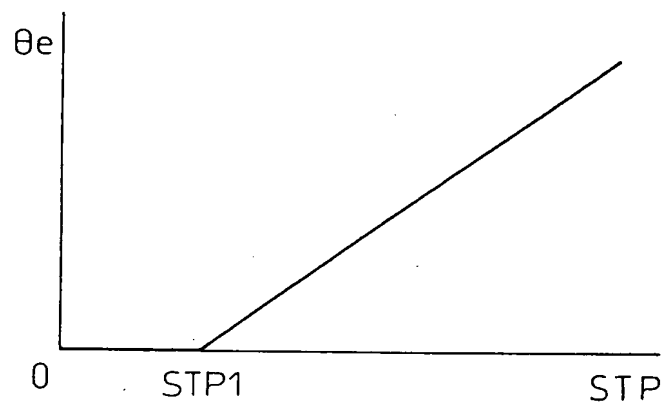
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Fig. 46



$\frac{38}{42}$ 

Fig.47



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Fig. 48A

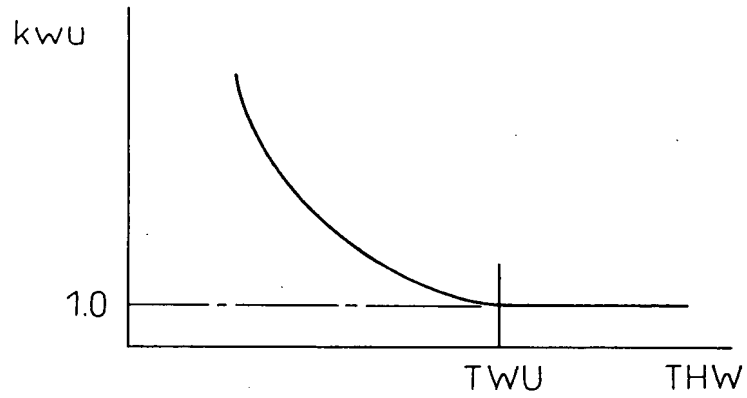


Fig. 48B

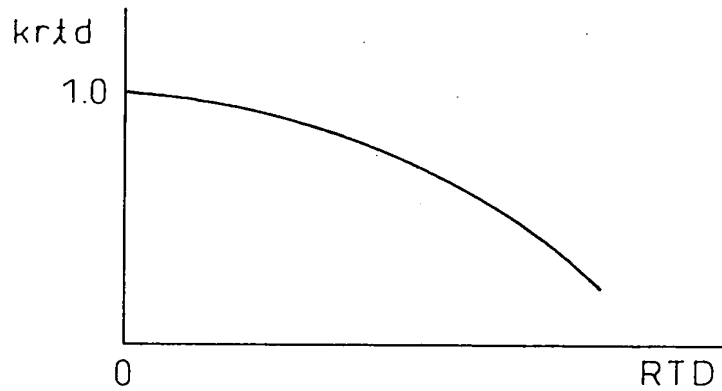
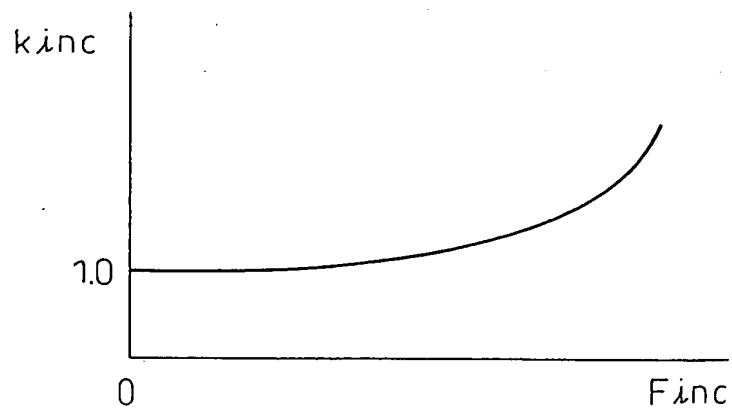
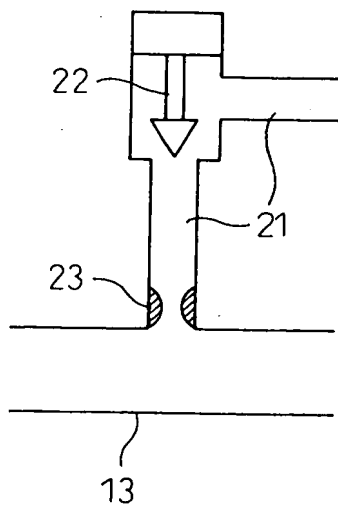


Fig. 48C



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Fig. 49





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Fig. 50A

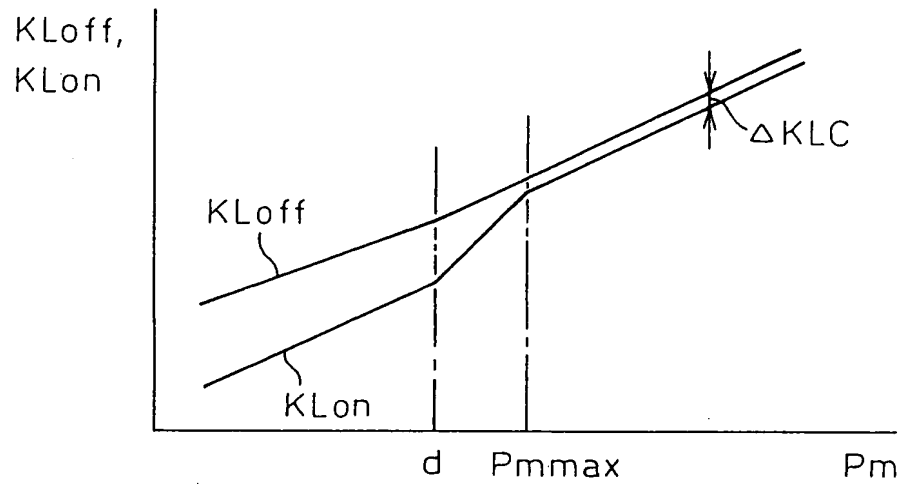
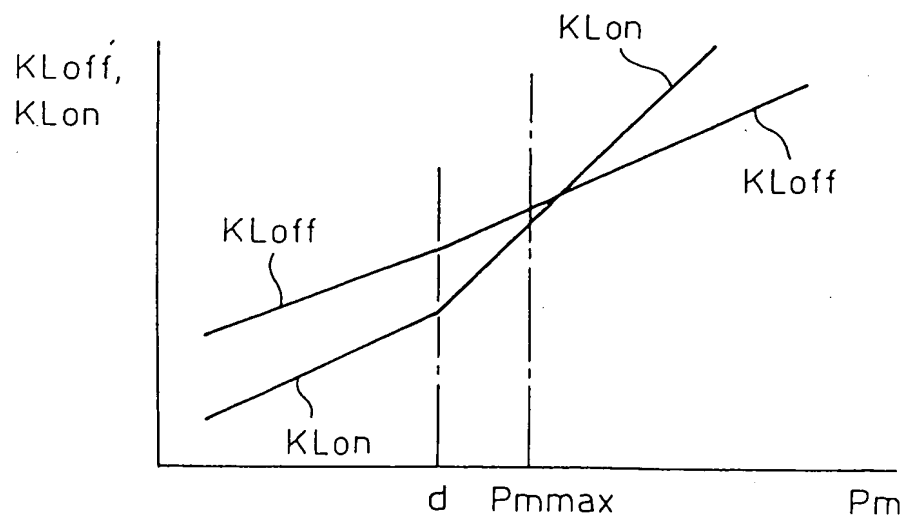


Fig. 50B



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Fig. 51A

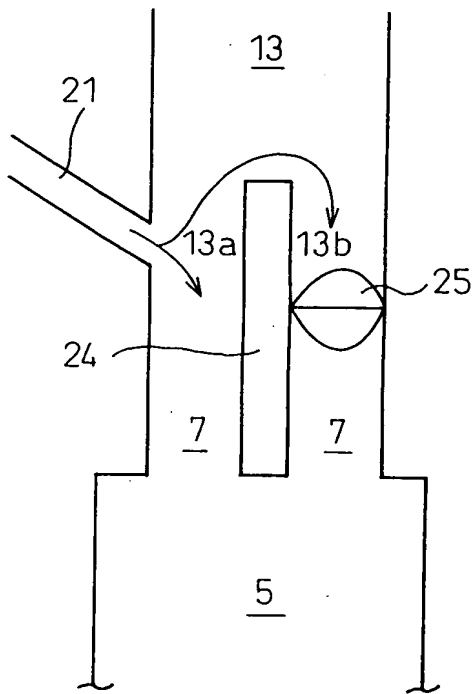


Fig. 51B

